

540,663

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number
WO 2004/057221 A1

(51) International Patent Classification⁷: **F16K 49/00** (81) Designated States (*national*): AU, CA, CN, US.

(21) International Application Number: PCT/AU2003/001722 (84) Designated States (*regional*): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

(22) International Filing Date: 23 December 2003 (23.12.2003) Declarations under Rule 4.17:

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 2002953538 23 December 2002 (23.12.2002) AU

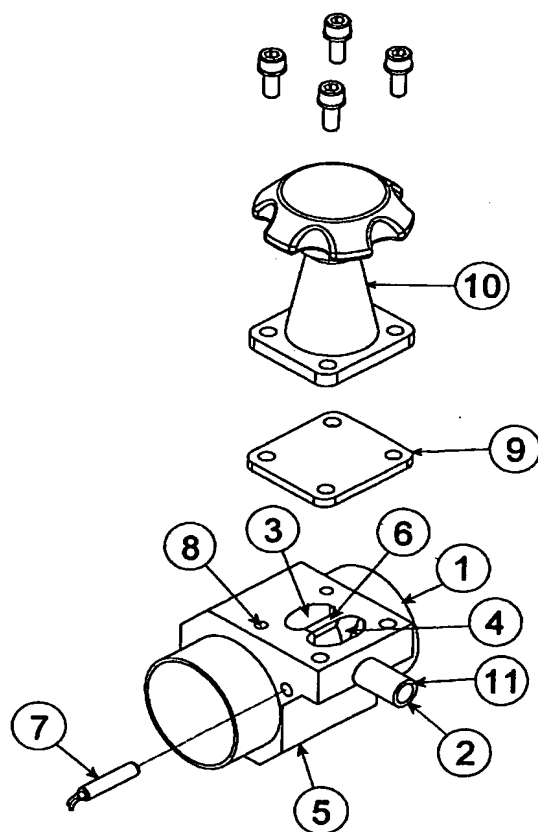
— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AU, CA, CN, European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR)
— of inventorship (Rule 4.17(iv)) for US only

Published:
— with international search report

(71) Applicants and
(72) Inventors: YEWDALL, Gary, Wayne [AU/AU]; 4 Margaret St, Rippleside, Geelong, Victoria 3215 (AU). PICKERING, Graham, William [AU/AU]; 73 Kilgour St., Geelong, Victoria 3220 (AU).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CLEAN LINE HEATED VALVE



(57) Abstract: A valve of cleanable design capable of maintaining unfavourable conditions for microbial activity on the downstream side and/or outlet of the valve, said valve comprising: A smooth and contoured body (5) with an integral upstream connector (1), downstream connector and defined fluid flow path; a flexible sealing membrane (9) being: (i) selectively moveable into contact with the valve body to close the valve; (ii) selectively moveable out of contact with the valve body to open the valve; (iii) selectively operable to a range of positions to vary the flow rate of fluid through said valve; a defined internal shape that allows the fluid to drain out of the valve body; an elongated heater (7) secured into the valve body in a location so as not to be in contact with the fluid or disrupt the internal smooth and contoured body, the heater being operative to heat the valve body to a predetermined temperature.

WO 2004/057221 A1